Lesson Plan 12: Reproductive System

# **Student Learning Objective:**

The student will be able to...

- 1. Distinguish reproductive system facts from myths.
- 2. Distinguish among definitions of: ovulation, ejaculation, intercourse, fertilization, implantation, conception, circumcision, genitals, and semen.
- 3. Explain the processes of the menstrual cycle and sperm production/ejaculation.

TIME NEEDED: 40-50 MINUTES

# **Materials Needed:**

1. One copy per student of "Reproductive System Worksheet #3 and 5" (fifth grade)

OR

Reproductive System Worksheets 4 & 5 (sixth grade)

OR

Reproductive System Worksheets, 4, 5 and 6 (Horizon classes or individual students with sophisticated writing skills)

- 2. Optional: Transparencies #4 & 5, same as "Reproductive System Worksheets #1 and 2"
- 3. Overhead projector

# <u>Agenda</u>:

- 1. Discuss purpose of lesson.
- 2. Use transparencies or your own drawing skills to explain the <u>processes</u> of the male and female reproductive systems and to answer "Anonymous Question Box" questions.
- 3. Use "Reproductive System Worksheet #3 or 4" to reinforce new terminology.
- 4. Use "Reproductive System Worksheet #5" as a large group exercise to reinforce understanding of the reproductive process.
- 5. Optional: Use Worksheet #6 to further reinforce activities #1 and 2, above.

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#### **ACTIVITY**

- 1. Explain why you are doing today's lesson so that people will understand their own bodies better and feel more confident asking questions and discussing bodies with their parents and doctors.
- 2. Using transparencies #4 and 5 or your own blackboard drawings, respond to the remainder of the "Anonymous Question Box" questions about the reproductive system, especially those on PHYSIOLOGY. If no questions arise regarding the following terms, explain them anyway:

OVULATION
EJACULATION
INTERCOURSE
FERTILIZATION
IMPLANTATION

6. CONCEPTION7. CIRCUMCISION8. GENITALS9. SEMEN10. MENSTRUATION

- 3. Hand out "Reproductive System Worksheet #3" (fifth grade) or "...#4" (sixth grade or Horizon) and allow students 5 to 10 minutes to complete it individually. Then, go over it aloud, letting students correct their own papers. Having them read the items will give them additional practice pronouncing the terms.
- 4. Hand out "Reproductive System Worksheet #5" and, as a <u>large</u> group, fill in the blanks.
- 5. OPTIONAL: Horizon classes or individual students with sophisticated writing skills may use "Reproductive System Worksheet #6" in pairs to help them reconstruct the processes of reproductive systems.

#### RELATED ACTIVITIES FOR INTEGRATED LEARNING:

- A. <u>LANGUAGE ARTS</u>: Add to Glossary the terms "cell," "cervix"," "clitoris," "Cowper's Gland," "ejaculate," "epididymus," "fallopian tube," "fertilize," "semen," "seminal vesicle," "testes," "urethra," and "vas deferens".
- B. MATH: Students can figure out, if a hypothetical female ovulates, say from age 12 to 47, 13 times a year, how many eggs are released altogether. (Answer: 455 eggs.) They can determine, if a hypothetical male produced 150 million sperm a day from age 15 until his death at age 75, how many would have been produced altogether. (Answer: 3,285,000,000,000 sperm in a lifetime or 54 billion, 750 million per year.)
- <u>HOMEWORK</u>: Students may <u>EITHER</u> discuss Reproductive System Worksheets with an adult in the family\* <u>OR</u> call the Sex Information Line (206) 328-7711 or their family doctor to find answers to one of the following common questions:

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- What does it mean if one breast or testicle is larger than the other?
- How does a person know when to get a checkup of the reproductive system?
- What is the best way to treat pimples?
- What if the penis or vagina is "too big" or "too small"?
- Do all boys have wet dreams and do girls have something similar?
- Do all girls menstruate and do boys have something similar?

**NOTE:** If you assign questions from the Question Box for students to find answers, MAKE SURE TO TYPE THEM FIRST, so that a student cannot recognize another student's handwriting and violate their anonymity.

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#### **REPRODUCTIVE SYSTEM WORKSHEET #3**

DIRECTIONS: Mark an "M" next to any part of a <u>male's</u> body, and an "F" next to any part of a <u>female's</u> body, or "E" if the part could belong to <u>either</u> a male or female.

So your choices are "M", "F", and "E".

4 Danie	1 0	Urethra
I Danic	111	IIIDTNI
1. Penis	10.	OLECHIA

2. Scrotum 11. Seminal Vesicle

3. Cervix 12. Epididymus

4. Bladder 13. Ovary

5. Vagina 14. Prostate Gland

6. Testicle7. Fallopian Tube15. Uterus16. Anus

8. Cowper's Gland 17. Vas Deferens

9. Labia 18. Clitoris

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#### **REPRODUCTIVE SYSTEM WORKSHEET #4**

DIRECTIONS: Put the letter of each word next to the correct definition of the word.

- A. circumcision
- B. conception
- C. ejaculation
- D. erection
- E. fertilization
- F. genitals
- G. implantation
- H. intercourse
- I. menstruation
- J. nocturnal emission
- K. ovulation
- L. ovum
- M. pituitary
- N. puberty
- O. semen
- P. sperm

- 1. The penis or clitoris filling with blood and getting harder and larger.
- 2. The outside parts of the male's and female's reproductive system.
- 3. Ejaculation during sleep (sometimes called "having a wet dream"
- 4. The process of fertilization and implantation
- 5. A cell from a woman's body that can start a pregnancy (sometimes called an "egg cell")
- 6. A cell from a man's body that can start a pregnancy
- 7. An operation to remove the foreskin from the penis
- 8. The meeting of the sperm and ovum
- 9. The penis being inside the vagina
- 10. The gland in the brain that triggers puberty
- 11. A ripe ovum coming out of the ovary
- 12. Semen coming out of the penis
- 13. The nesting of a fertilized egg in the wall of the uterus
- 14. The body beginning to change from a child's into an adult's
- 15. The liquid that carries sperm
- 16. The lining of the uterus coming out through the vagina (sometimes called "having a period")

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#### **REPRODUCTIVE SYSTEM WORKSHEET #5**

DIRECTIONS: Fill in the blanks. Then look up each word to make sure you have spelled it correctly.

1.	The outside parts of the male reproductive system are the penis and the
2.	The outside parts of the female reproductive system are the labia and the
3.	A female has three openings: The in the front, the in the middle (where the blood comes out during her period) and the anus in the back.
4.	Sperm are made in the testicles. They are stored for 2-3 months in the and then they travel through the and the urethra, which leads out of the penis.
5.	The semen is made up of sperm and liquids. The liquids are produced by the, the, and the
5.	In both the males and females, urine is stored in the and leaves the body through the urethra.
7.	Both males and females have an opening where bowel movements come out. It is called the
3.	A baby grows for nine months in the
Э.	The scrotum is the sac that holds the
10.	The parts of the body that protect the urethra and the vagina are called
11.	When an egg cell leaves the, it travels through the on its way to the uterus.
12.	The opening of the uterus into the vagina is called the

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#### **REPRODUCTIVE SYSTEM WORKSHEET #6**

DIRECTIONS: Below are two stories. The events are all out of order. Get a sheet of lined paper. Write "Reproductive System Worksheet #6" at the top. Then choose ONE of the two stories and rewrite it. Begin with the title and your name. Find a topic sentence to begin your paragraph. Put the sentences in logical order. Make sure the last sentence is a good concluding statement.

After you have finished writing your story, reread it, checking off the sentences on this worksheet to make sure you have used them all. Then read the story aloud to a friend to see whether it makes sense.

#### A) The Menstrual Cycle

It travels through the fallopian tube.

The ovum is released by the ovary.

About two weeks later, since the lining of the uterus is not needed for pregnancy, it comes out through the vagina.

It is incredible how the female body knows how to prepare for pregnancy!

If the egg doesn't meet a sperm, it dissolves.

While the ovum is developing, the lining of the uterus is getting thick and soft.

Another ovum starts to develop in one of the ovaries and the process begins again.

An ovum starts to develop.

#### B) I am produced in the testicles.

I go from the vas deferens to the urethra.

The Life of the Sperm Cell

I go through the cervix and the uterus and into the fallopian tubes, in search of an egg cell.

I develop for two or three months in the epididymus.

When the penis becomes erect, I leave the epididymus and travel up into the body through the vas deferens.

As I pass the prostate gland, the seminal vesicles, and the Cowper's glands, fluids are added so that I can live longer and swim more easily.

Without me, an egg cell couldn't begin the amazing process of reproduction.

The urethra carries me (along with about 200 million other sperm) out of the penis in a process called ejaculation.

If I can find the ovum before the other sperms do, I will be the winner: part of a fertilized egg!

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#### REPRODUCTIVE SYSTEM WORKSHEET #3 - ANSWERS

DIRECTIONS: Mark an "M" next to any part of a <u>male's</u> body, and an "F" next to any part of a <u>female's</u> body, or "E" if the part could belong to <u>either</u> a male or female.

So your choices are "M", "F", and "E".

М	1	Penis	<b>E</b> 10.	Urethra
-	т.	r Cilio	_ 10.	Orecina

M 2. Scrotum M 11. Seminal Vesicle

**F** 3. Cervix **M** 12. Epididymus

**E** 4. Bladder **F** 13. Ovary

<u>F</u> 5. Vagina <u>M</u> 14. Prostate Gland

M 6. TesticleF 15. UterusF 7. Fallopian TubeE 16. Anus

M 8. Cowper's Gland M 17. Vas Deferens

**F** 9. Labia **F** 18. Clitoris

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#### REPRODUCTIVE SYSTEM WORKSHEET #4 - ANSWERS

DIRECTIONS: Put the letter of each word next to the correct definition of the word.

- A. circumcision
- B. conception
- C. ejaculation
- D. erection
- E. fertilization
- F. genitals
- G. implantation
- H. intercourse
- I. menstruation
- J. nocturnal emission
- K. ovulation
- L. ovum
- M. pituitary
- N. puberty
- O. semen
- P. sperm

- 1. The penis or clitoris filling with blood and getting harder and larger.
- **E** 2. The outside parts of the male's and female's reproductive system.
- 3. Ejaculation during sleep (sometimes called "having a wet dream".
- **B** 4. The process of fertilization and implantation.
- 5. A cell from a woman's body that can start a pregnancy (sometimes called an "egg cell").
- P 6. A cell from a man's body that can start a pregnancy.
- A 7. An operation to remove the foreskin from the penis.
- **E** 8. The meeting of the sperm and ovum.
- 9. The penis being inside the vagina
- 10. The gland in the brain that triggers puberty
- **K** 11. A ripe ovum coming out of the ovary
- **C** 12. Semen coming out of the penis
- **G** 13. The nesting of a fertilized egg in the wall of the uterus
- № 14. The body beginning to change from a child's into an adult's
- 15. The liquid that carries sperm
- **I** 16. The lining of the uterus coming out through the vagina (sometimes called "having a period")

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#### REPRODUCTIVE SYSTEM WORKSHEET #5 — ANSWERS

DIRECTIONS: Fill in the blanks. Then look up each word to make sure you have spelled it correctly.

1.	The outside parts of the male reproductive system are the penis and the <a href="mailto:scrotum">scrotum</a> .
2.	The outside parts of the female reproductive system are the labia and the <b>clitoris</b> .
3.	A female has three openings: The <u>urethra</u> in the front, the <u>vagina</u> in the middle (where the blood comes out during her period) and the anus in the back.
4.	Sperm are made in the testicles. They are stored for 2-3 months in the <a href="mailto:epididymus">epididymus</a> and then they travel through the <a href="mailto:vas deferens">vas deferens</a> and the urethra, which leads out of the penis.
5.	The semen is made up of sperm and liquids. The liquids are produced by the seminal vesicles, the Cowper's glands, and the prostate.
5.	In both the males and females, urine is stored in the <u>bladder</u> and leaves the body through the urethra.
7.	Both males and females have an opening where bowel movements come out. It is called the <u>anus</u> .
3.	A baby grows for nine months in the <u>uterus</u> .
Э.	The scrotum is the sac that holds the <b>testicles (or testes)</b> .
10.	The parts of the body that protect the urethra and the vagina are called labia
11.	When an egg cell leaves the <u>ovary</u> , it travels through the <u>fallopian tube</u> on its way to the uterus.
12.	The opening of the uterus into the vagina is called the <b>cervix</b> .

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After you have finished writing your story, reread it, checking off the sentences on this worksheet to make sure you have used them all. Then read the story aloud to a friend to see whether it makes sense.

- A) <u>1</u> The Menstrual Cycle
  - 6 It travels through the fallopian tube.
  - 5 The ovum is released by the ovary.
  - **8** About two weeks later, since the lining of the uterus is not needed for pregnancy, it comes out through the vagina.
  - 2 It is incredible how the female body knows how to prepare for pregnancy!
  - 7 If the egg doesn't meet a sperm, it dissolves.
  - 4 While the ovum is developing, the lining of the uterus is getting thick and soft.
  - **9** Another ovum starts to develop in one of the ovaries and the process begins again.
  - **3** An ovum starts to develop.
- B) 3 I am produced in the testicles.
  - **6** I go from the vas deferens to the urethra.
  - 1 The Life of the Sperm Cell
  - **9** I go through the cervix and the uterus and into the fallopian tubes, in search of an egg cell.
  - 4 I develop for two or three months in the epididymus.
  - <u>5</u> When the penis becomes erect, I leave the epididymus and travel up into the body through the vas deferens.
  - As I pass the prostate gland, the seminal vesicles, and the Cowper's glands, fluids are added so that I can live longer and swim more easily.
  - 2 Without me, an egg cell couldn't begin the amazing process of reproduction.
  - 8 The urethra carries me (along with about 200 million other sperm) out of the penis in a process called ejaculation.
  - 10 If I can find the ovum before the other sperms do, I will be the winner: part of a fertilized egg!